

How to search for data products by measurement type with **Giovanni-4**

The following slides demonstrate how to search for a data product using the Giovanni-4 data measurement types

Giovanni-4 interface, with no plot options selected

Giovanni The Bridge Between Data and Science v 4.11 [Release Notes](#) [Browser Compatibility](#) [Known Issues](#)

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Select Plot

☒ Maps: Time-Averaged ☐ Comparisons: Select... ☐ Time Series: Select... ☐ Vertical: Select... ☐ Miscellaneous: Select...

Select Date Range (UTC)
Format: YYYY-MM-DD.
- - 00 hrs to - - 23 hrs
Valid Range: 1979-01-01 to 2014-12-17

Select Region (Bounding Box or Shapefile)
Format: West, South, East, North
-180, -90, 180, 90 [Show Map](#) [Show Shapes](#)

Select Variables

▼ Disciplines

- ☐ Aerosols (124)
- ☐ Atmospheric Chemistry (12)
- ☐ Atmospheric Dynamics (62)
- ☐ Hydrology (30)
- ☐ Water and Energy Cycle (42)

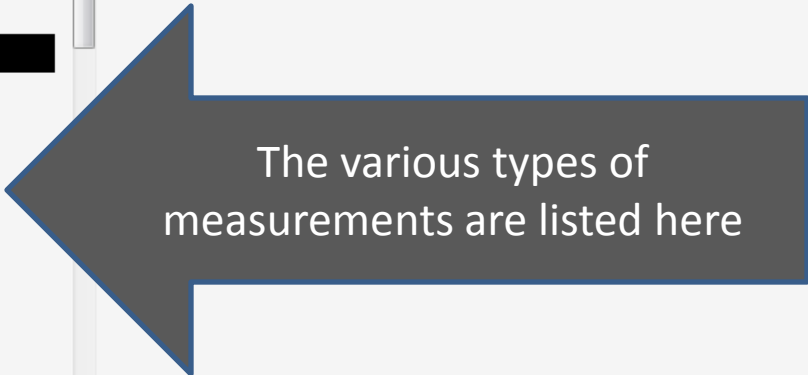
▼ Measurements

- ☐ Aerosol Index (1)
- ☐ Air Pressure (5)
- ☐ Air Temperature (14)
- ☐ Albedo (5)
- ☐ Altitude (4)
- ☐ Angstrom Exponent (16)
- ☐ Atmospheric Moisture (21)
- ☐ CH4 (4)
- ☐ CO (4)
- ☐ Cloud Fraction (4)
- ☐ Cloud Properties (9)

Number of matching Variables: 0 of 239
Total Variable(s) included in Plot: 0

Keyword : [Search](#) [Clear](#)

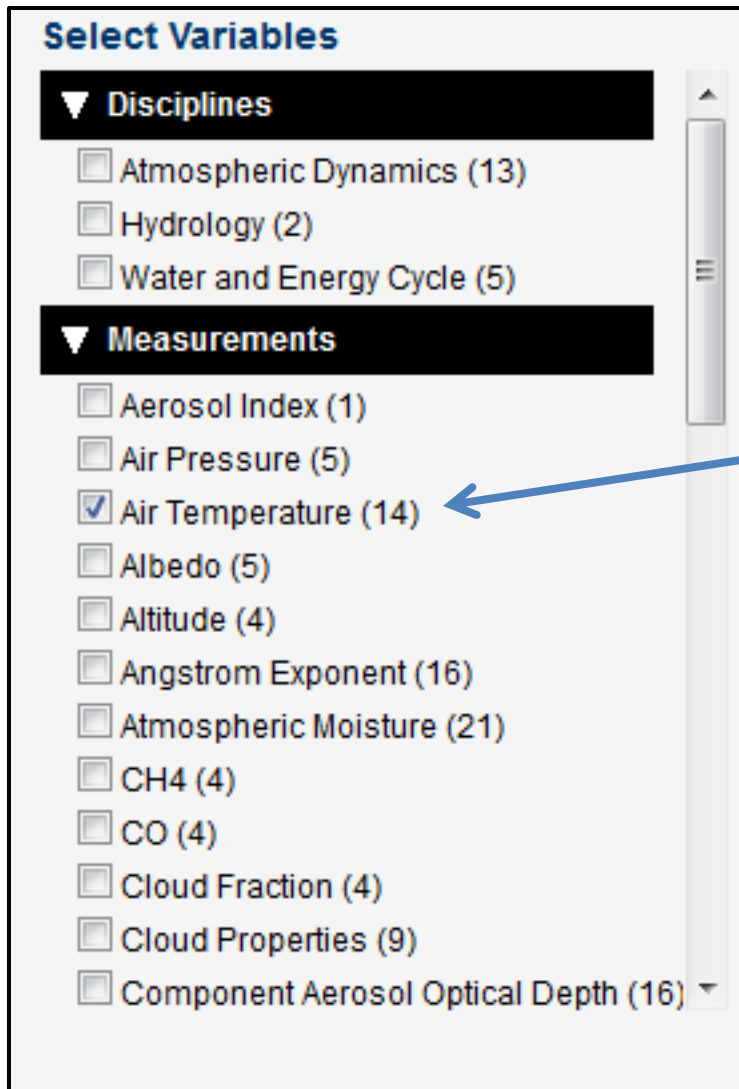
[Help](#) [Reset](#) [Feedback](#) [Plot Data](#)



The various types of measurements are listed here

Different types of measurements can be made for the same component of the Earth system, such as clouds or air temperature.

To select a measurement type, simply click on the box next to the name of the measurement.



The image shows a software interface titled "Select Variables". It has two main sections: "Disciplines" and "Measurements". Under "Disciplines", there are three options: "Atmospheric Dynamics (13)", "Hydrology (2)", and "Water and Energy Cycle (5)". Under "Measurements", there are ten options: "Aerosol Index (1)", "Air Pressure (5)", "Air Temperature (14)", "Albedo (5)", "Altitude (4)", "Angstrom Exponent (16)", "Atmospheric Moisture (21)", "CH4 (4)", "CO (4)", "Cloud Fraction (4)", "Cloud Properties (9)", and "Component Aerosol Optical Depth (16)". The "Air Temperature (14)" option is selected, indicated by a blue checkmark in the checkbox. A blue arrow points from the text box on the right to this selected option.

Select Variables

▼ **Disciplines**

- ☐ Atmospheric Dynamics (13)
- ☐ Hydrology (2)
- ☐ Water and Energy Cycle (5)

▼ **Measurements**

- ☐ Aerosol Index (1)
- ☐ Air Pressure (5)
- ☒ Air Temperature (14)
- ☐ Albedo (5)
- ☐ Altitude (4)
- ☐ Angstrom Exponent (16)
- ☐ Atmospheric Moisture (21)
- ☐ CH4 (4)
- ☐ CO (4)
- ☐ Cloud Fraction (4)
- ☐ Cloud Properties (9)
- ☐ Component Aerosol Optical Depth (16)

For this example, "**Air Temperature**" has been selected. The number '14' in parentheses indicates that there are 14 different data variables available for this measurement type.

More than one measurement type can be selected. All of the data variables will be listed. This feature allows different data variables to be plotted at the same time.

Here are the results of the search for data variables by measurement type, after selecting the "Air Temperature" measurement.

Select Variables

Disciplines

- ☐ Atmospheric Dynamics (13)
- ☐ Hydrology (2)
- ☐ Water and Energy Cycle (5)

Measurements

- ☐ Aerosol Index (1)
- ☐ Air Pressure (5)
- ☒ Air Temperature (14)
- ☐ Albedo (5)
- ☐ Altitude (4)
- ☐ Angstrom Exponent (16)
- ☐ Atmospheric Moisture (21)
- ☐ CH₄ (4)
- ☐ CO (4)
- ☐ Cloud Fraction (4)
- ☐ Cloud Properties (9)
- ☐ Component Aerosol Optical Depth (16)

Number of matching Variables: 14 of 239

Total Variable(s) included in Plot: 0

Keyword:

	Variable Name	Source	Temp. Res.	Spat. Res.	Begin Date	End Date	Vert. Slice
<input type="checkbox"/>	Air Temperature (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000 hP
<input type="checkbox"/>	Air Temperature (Nighttime/Descending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000 hP
<input type="checkbox"/>	Air Temperature at 2m (NLDAS FORA0125_H v002)	NLDAS Model	Hourly	0.125 °	1979-01-01	2014-12-13	-
<input type="checkbox"/>	Air temperature at surface (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	-
<input type="checkbox"/>	Air temperature at surface (Nighttime/Descending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	-
<input type="checkbox"/>	Tropopause Temperature (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	-

Scroll down to see the all of the data variables.

The next step is to select the desired data variables.

For this example, the two Atmospheric Infrared Sounder (AIRS) Daily Air Temperature variables are selected.

Number of matching Variables: 14 of 239 Total Variable(s) included in Plot: 2

Keyword: Search Clear

	Variable Name	Source	Temp. Res.	Spat. Res.	Begin Date	End Date	Vert. Slice
<input checked="" type="checkbox"/>	Air Temperature (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000 hP
<input checked="" type="checkbox"/>	Air Temperature (Nighttime/Descending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000 hP
<input type="checkbox"/>	Air Temperature at 2m (NLDAS FORA0125 H v002)	NLDAS Model	Hourly	0.125 °	1979-01-01	2014-12-13	-
<input type="checkbox"/>	Air temperature at surface (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	-
<input type="checkbox"/>	Air temperature at surface (Nighttime/Descending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	-
<input type="checkbox"/>	Tropopause Temperature (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	-

Then click on the "Clear" button.

Here are the results after clicking the “Clear” button. Only the selected data variables are displayed.

Number of matching Variables: 0 of 239 Total Variable(s) included in Plot: 2

Keyword : Search Clear

	Variable Name	Source	Temp. Res.	Spat. Res.	Begin Date	End Date	Vert. Slice
<input checked="" type="checkbox"/>	Air Temperature (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000
<input checked="" type="checkbox"/>	Air Temperature (Nighttime/Descending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000

It is then possible to go back to the measurement type menu and select a different measurement, and add those variables to the list.

In this case, the “**Soil Moisture**” measurement type was selected. The list of Soil Moisture data variables is now shown below the selected AIRS air temperature data variables.

Number of matching Variables: 6 of 239 Total Variable(s) included in Plot: 2

Keyword : Search Clear

	Variable Name	Source	Temp. Res.	Spat. Res.	Begin Date	End Date	Vert. Slice
<input checked="" type="checkbox"/>	Air Temperature (Daytime/Ascending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000 hPa
<input checked="" type="checkbox"/>	Air Temperature (Nighttime/Descending) (AIRX3STD v006)	AIRS	Daily	1 °	2002-08-31	2014-12-15	1000 hPa
<input type="checkbox"/>	Soil Moisture Content Layer 1 (0-10 cm) (NLDAS_NOAH0125_H v002)	NLDAS Model	Hourly	0.125 °	1979-01-02	2014-12-13	-
<input type="checkbox"/>	Soil Moisture Content Top 1 Meter (0-100 cm) (NLDAS_NOAH0125_H v002)	NLDAS Model	Hourly	0.125 °	1979-01-02	2014-12-13	-
<input type="checkbox"/>	Soil Moisture Content Total Column (0-200 cm) (NLDAS_NOAH0125_H v002)	NLDAS Model	Hourly	0.125 °	1979-01-02	2014-12-13	-
<input type="checkbox"/>	Soil Moisture Content Layer 2 (10-40 cm) (NLDAS_NOAH0125_H v002)	NLDAS Model	Hourly	0.125 °	1979-01-02	2014-12-13	-

Help Reset Feedback Plot Data

This process can continue until all of the desired data variables have been selected. They can all be plotted with one click on the “Plot Data” button.

**End
of
demonstration**